

## 9. THE RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY

The proposed facilities' main plant site would occupy about 75 acres, and ancillary facilities and pipeline corridors would occupy a few additional acres. The facilities would consume resources including anthracite culm, natural gas, limestone, water, *and possibly petroleum coke* (Section 8). The proposed facilities would use some of the existing Gilberton Power Plant's facilities (e.g., possibly expanding the existing beneficiation plant) and infrastructure (e.g., roads, electric transmission lines and towers), which would reduce duplication of facilities and infrastructure. The project would generate air emissions, liquid effluents, and solid wastes. However, the proposed facilities' use of anthracite culm as feedstock would allow reclamation of land currently stockpiled with culm. In addition, water returned to the mine pool *system* following use by the proposed facilities would *have lower concentrations of mining-related contaminants, and water use by the proposed facilities would reduce the amount of contaminated mine-pool water discharged into Mahanoy Creek*.

The long-term benefit of the proposed project would be to demonstrate the commercial viability of integrated technologies using coal waste to produce electricity, steam, and liquid hydrocarbon fuels that can reduce U.S. dependence on imported oil. The ability to show prospective domestic and overseas customers an operating facility rather than a conceptual or engineering prototype would provide a persuasive inducement to purchase advanced coal utilization technology. Data obtained on operational characteristics during the demonstration would allow prospective customers to assess the potential of the integrated technologies for commercial application. Successful demonstration would enhance prospects of exporting the integrated technologies to other nations and may provide the single most important advantage that the United States could obtain in the global competition for new markets.

The design size for the proposed project was selected to convince potential customers that the technology, once demonstrated at this scale, could be commercialized without further scale-up to verify operational or economic performance. Therefore, although the proposed facilities would consume resources and generate emissions, effluents, and solid wastes, they would demonstrate a technology that, once commercialized, would decrease coal waste and reduce U.S. dependence on imported oil.

